

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of )  
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Amendment of the )  
Commission's Rules to Define ) RM - 8143  
Effective Means for Interworking )  
of Customer Premises Equipment and )  
Public Enhanced 9-1-1 Systems )

**COMMENTS**

GTE Service Corporation, on behalf of its domestic, affiliated telephone, equipment and service companies ("GTE"), hereby offers its Comments to the Commission's Public Notice, released December 29, 1992, regarding Adcomm Engineering Company's ("Adcomm") Petition for Rulemaking (the "Petition") requesting amendment of the Commission's rules referenced above. GTE generally supports the Petition and believes the issue being addressed, potential harm arising from incompatibility between enhanced ("E") 9-1-1 ("E911") emergency access networks and private, dispersed telephone systems, warrants Commission initiation of a rulemaking proceeding to investigate the issues and determine what, if any, action is required. It appears several states are looking into the same issues and a national, uniform method would be preferable.

**BACKGROUND**

The Petition (at 3) discusses the key nature of the use of the calling telephone number in the E911 process and details the telephone number's role in the routing of calls to the correct Public Safety Answering Point ("PSAP") and

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to the data base that provides address information. The Petition describes how private telephone systems can concentrate caller access to the public network at a single point and that when such concentration occurs, unless distinct telephone numbers are assigned to all locations within the private telephone system, the E911 data base will be referenced incorrectly. Adcomm states that two steps are necessary to ensure correct operation of an E911 system: (1) the data base must be improved to reflect the actual emergency response locations associated with telephone numbers and (2) the private user's actual telephone number or index must be sent to the (E) 9-1-1 system along with the emergency call. (Id.) Adcomm proposes equipping each private telephone system with trunks capable of carrying distinct station numbers (or indexes) to the PSAP system and modifying the telephone company's Automatic Location Identification ("ALI") data base. Lastly, the Petition (at 4) maintains: "A common approach to handling (E) 9-1-1 calls from private switching systems and the associated location information is necessary to prevent a profusion of incompatible solutions."

## **DISCUSSION**

### **GTE supports the initiation of a rulemaking that addresses and examines standardized means of E911 access for private switching systems.**

GTE supports Commission initiation of a rulemaking proceeding to address development of a standardized means of access from Private Branch Exchanges ("PBXs") and Key Telephone Systems ("KTSs") to E911 systems. Such a standardized solution would require the creation of a standard interface of Automatic Number Identification ("ANI") or other identifying data from private switching systems to Local Exchange Carrier ("LEC") networks and would

require private switching systems to comply with National Emergency Number Association ("NENA") standards of ALI data transmission when delivering ALI information to the primary telephone company or data base location. Any rule developed by the Commission in this area must be fashioned in a way that balances the needs and burdens of the parties involved: PBX owners, County governments, and LECs. Requiring all PBXs and KTSs be made compatible with E911 caller and location identifying capabilities may burden private system owners with high costs to modify or replace their existing equipment. To provision an access solution, County governments and PBX or KTSs customers may have to purchase "standard" E911 trunks.<sup>1</sup> Proper LEC processing of ANI or other information to the PSAP may require provision of special trunks to all PBX and possibly KTS customer locations. Other key issues that need to be addressed include the addition of added functionality to most local/end office switches, and additional telephone number assignments for this purpose which could accelerate exhaustion of the North American Numbering Plan ("NANP"). Many PBXs today do not have Direct Inward Dial ("DID") Numbers assigned to every station. PBX extension numbers, often designating a hotel or hospital room number, are used to identify the station instead. The rulemaking would need to examine whether all stations would require a DID-like number, or whether an "index" or some other numbering identification could be used for these situations. There exists, among customer and exchange carrier equipment, a wide variety of access capability requirements that necessitate

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<sup>1</sup> Many KTSs may not be affected by these issues if they are directly associated with lines that provide ANI today. However, some KTS functions may be provided by hybrid systems that use PBX-like hardware and would look more like a PBX to the network and the PSAP.

development of a national "standardized" access solution if E911 service is to remain affordable and universally available.

**GTE believes the Telecommunications Industry Association's efforts to develop standardized E911 service for telephones of PBXs and KTSs should serve as a first step and model for the Commission rules.**

The Telecommunications Industry Association ("TIA") is a trade association representing companies which provide telecommunications materials, products, systems, distribution services and professional services both domestically and internationally. It has formed a working group to develop standardized means of access from PBXs and KTSs to E911 service. The working group proposes to develop national technical requirements for multi-line telecommunications systems means of access to E911 services to avoid incompatibilities between jurisdictions. The goal is to develop a uniform approach, to simplify equipment design, and to facilitate compliance in all jurisdictions. The group expects to complete a technical bulletin of configurations available for supporting E911 by June 30, 1993. GTE urges the Commission to consider using TIA's technical bulletin as a basis or model in any rulemaking notice issued in response to the Petition. Additionally, the Commission is urged to consider TIA's input in identifying issues that should be considered in the Commission's rulemaking proceeding.

**GTE requests other issues be considered in the Commission's rulemaking proceeding.**

GTE is confused by the Adcomm's use of the term "8 digit numbers" in its proposed rule modifications (Petition at 7) and requests the Commission clarify

this terminology. The Petition proposes establishing a minimum of one dedicated trunk between each private switching system and the PSAP. Additional trunks are allowed, however, the proposed rule requires additional trunks in order to satisfy a B.01 level of availability based on the number of users served. (Petition at 8) GTE requests clarification of what Adcomm means by this statement since GTE knows of no B.01 reference standard for trunk availability and since trunk groups are normally sized based on the level of traffic to be carried during the busy hour measured in Erlangs and the probability of blockage. The amount of E911 traffic during the busy hour would be minimal. If the fear is an outage of the minimum of one trunk, then two dedicated circuits from each private switching system to the LEC serving central office might be a viable alternative. However, a better alternative may be to allow the E911 call to route over the existing trunk group from the PBX since this would make more circuits available in an emergency. All options should be explored. Dedicated trunks to the PSAP may not be cost effective at the PSAP end, concentration of traffic in the network may be a better solution. The Adcomm proposal also affects the NANP and dialing plans by proposing that whether 9-1-1 or 9-9-1-1 is dialed, the call should be routed the same. (Id.) If some areas of the country use 11X codes for some purposes, a numbering ambiguity is created that could only be resolved by time-out on the "911" dialed call since it would not be clear whether the party was dialing the 9-1-1 center or dialing the Direct Outward Dialing ("DOD") trunk group and the 11X code. (i.e., 9+11X). The roles and responsibilities of all involved parties in ALI data base creation and maintenance should be addressed. Large private switching systems which serve campus-type installations pose unique location identification problems that need to be considered in that roads and streets within the installations often do not appear on community maps. The timing of any FCC-required changes should also be

addressed. Should residential situations like a Shared Tenant System be given first priority, or should priority be directed to Hotels and Hospitals? For some large campus-like areas, the first response to a 9-1-1 call may be a local response from on-base authorities at military bases or airport authorities. Do these situations need to be exempted from the rules or possibly covered last? Wireless PBXs are also beginning to be introduced and these systems will also pose unique issues. Finally, the timing of any rule changes and grandfathering issues of existing equipment need to be analyzed. Oftentimes the FCC has allowed a "cradle-to-grave" grandfathered right of interconnection. However, In its DID Order, the FCC allowed PBXs to be grandfathered as long as they were not moved or had any trunks added. (See §68.314(h)(4)).

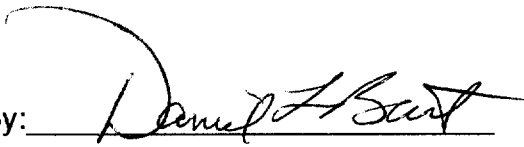
## **CONCLUSION**

GTE generally supports Adcomm's Petition for Rulemaking, but believes any Commission proceeding must address more issues than Adcomm poses and GTE offers suggestions of additional issues that need to be addressed. GTE requests the Commission consider using standardization material developed by TIA in developing the Commission's framework for a rulemaking

proceeding or amending existing rules. GTE urges the Commission grant Adcomm's request as modified herein.

Respectfully submitted,

**GTE Service Corporation,**  
on behalf of its domestic, affiliated,  
telephone, equipment and service  
companies

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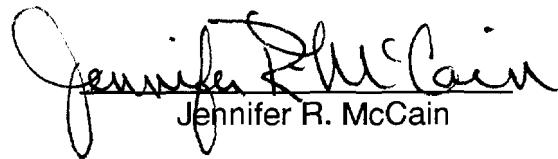
January 28, 1993

Their Attorney

## Certificate of Service

I, Jennifer R. McCain, hereby certify that copies of the foregoing "GTE's Comments" have been mailed by first class United States mail, postage prepaid, on the 28th day of January, 1993 to the following party:

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